

IN THE CLAIMS:

Claims 1-22. (Cancelled).

23. (Previously Presented) A method for measuring at least one vehicle wheel alignment angle from a vehicle wheel hub assembly, comprising:

mounting a wheel alignment sensor to a wheel rim and tire assembly secured to said vehicle wheel hub assembly;

obtaining a first measurement of at least one alignment angle with said mounted wheel alignment sensor;

removing said wheel alignment sensor from said wheel rim and tire assembly;

removing said wheel rim and tire assembly from said vehicle wheel hub assembly;

mounting said wheel alignment sensor to said vehicle wheel hub assembly; and

obtaining a second measurement of said at least one alignment angle with said mounted wheel alignment sensor;

calculating an offset angle using said first measurement and said second measurement, said offset angle representative of an angle variation between a wheel-mounted sensor angle measurement and a vehicle wheel hub assembly-mounted sensor angle measurement; and

subtracting said calculated offset angle from at least one predetermined specification value for said at least one alignment angle to offset said specification value, wherein one or more subsequent vehicle wheel hub assembly-mounted sensor angle measurements of said at least one alignment angle may be compared with said offset specification value to determine a required wheel alignment adjustment.

24. (Previously Presented) A method for measuring at least one vehicle wheel alignment angle from a vehicle wheel hub assembly, comprising:

mounting a wheel alignment sensor to a wheel rim and tire assembly secured to said vehicle wheel hub assembly;

obtaining a first measurement of at least one alignment angle with said mounted wheel alignment sensor;

removing said wheel alignment sensor from said wheel rim and tire assembly;

removing said wheel rim and tire assembly from said vehicle wheel hub assembly;

mounting said wheel alignment sensor to said vehicle wheel hub assembly; and

obtaining a wheel-off measurement of said at least one alignment angle with said mounted wheel alignment sensor;

obtaining at least one subsequent wheel-off measurement of said at least one alignment angle with said mounted wheel alignment sensor;

calculating an offset angle using said wheel-off measurement and said at least one subsequent wheel-off measurement, said offset angle representative of an angle alteration to said at least one alignment angle; and

utilizing said calculated offset angle to determine a necessary alignment angle adjustment.

25. (Previously Presented) The method of Claim 24 for measuring at least one vehicle wheel alignment angle from a vehicle wheel hub assembly wherein said utilizing step further includes compensating said first measurement by said calculated

offset angle for display to an operator in such a manner so as to appear as if obtained by a wheel-mounted sensor.

26. (Previously Presented) The method of Claim 25 for measuring at least one vehicle wheel alignment angle from a vehicle wheel hub assembly wherein said utilizing step further includes comparing said compensated first measurement with a predetermined specification value for said at least one alignment angle.

27. (Previously Presented) The method of Claim 24 for measuring at least one vehicle wheel alignment angle from a vehicle wheel hub assembly wherein said utilizing step further includes subtracting said calculated offset angle from at least one predetermined specification value for said at least one alignment angle to compensate said specification value, wherein said first measurement of said at least one alignment angle may be compared with said compensated specification value to determine a necessary alignment angle adjustment.

28. (New) A method for measuring at least one vehicle wheel alignment angle from a vehicle wheel hub assembly, comprising:

operatively coupling a wheel alignment sensor to a wheel rim and tire assembly secured to said vehicle wheel hub assembly;

obtaining a first measurement of at least one alignment angle with said mounted wheel alignment sensor;

removing said wheel alignment sensor from said wheel rim and tire assembly;

removing said wheel rim and tire assembly from said vehicle wheel hub assembly;

operatively coupling said wheel alignment sensor to said vehicle wheel hub assembly; and

obtaining a second measurement of said at least one alignment angle with said mounted wheel alignment sensor;

calculating an offset angle representative of an angle variation between an angle measurement acquired by said sensor coupled to said wheel rim and tire assembly and an angle measurement acquired by said sensor coupled to said wheel hub assembly; and

utilizing said calculated offset angle to present angle measurements acquired by said sensor coupled to said wheel hub assembly to an operator in such a manner so as to appear as if obtained by a sensor coupled to said wheel rim and tire assembly.

29. (New) A method for adjusting at least one vehicle wheel alignment angle on a vehicle including a wheel rim and tire assembly secured to a wheel hub assembly, comprising:

operatively coupling a wheel alignment sensor to said wheel rim and tire assembly;

obtaining a first measurement of at least one alignment angle with said wheel alignment sensor coupled to said wheel rim and tire assembly;

removing said wheel alignment sensor from said wheel rim and tire assembly;

removing said wheel rim and tire assembly from said wheel hub assembly;

removably securing an adapter to said wheel hub assembly;

operatively coupling said wheel alignment sensor to said adapter;

obtaining a second measurement of said at least one alignment angle with said wheel alignment sensor coupled to said adapter prior to adjusting said at least one alignment angle;

calculating an offset angle between said first measurement and said second measurement;

utilizing said offset angle with said second measurement and any subsequent measurements of said at least one alignment angle obtained by said wheel alignment sensor coupled to said adapter to obtain a current representative measurement of said vehicle wheel alignment angle; and

utilizing said current representative measurement of said vehicle wheel alignment angle to facilitate guiding an operator in adjusting said at least one alignment angle.

30. (New) A method for adjusting at least one vehicle wheel alignment angle on a vehicle including a wheel rim and tire assembly secured to a wheel hub assembly, comprising:

operatively coupling a wheel alignment sensor to said wheel rim and tire assembly;

obtaining a first measurement of at least one alignment angle with said alignment sensor coupled to said wheel rim and tire assembly;

removing said wheel alignment sensor from said wheel rim and tire assembly;

removing said wheel rim and tire assembly from said wheel hub assembly;

operatively coupling said wheel alignment sensor to said wheel hub assembly;

obtaining a second measurement of said at least one alignment angle with said alignment sensor coupled to said wheel hub assembly;

calculating an offset angle between said first measurement and said second measurement;

utilizing said offset angle to obtain a corrected measurement for said at least one alignment angle; and

comparing a predetermined specification value for said at least one alignment angle with said corrected measurement for said at least one alignment angle to identify a necessary alignment angle adjustment required to alter said alignment angle.